DVD FULL VERSION IN FOCUS

DVD Full Version: Zampler & Grand Piano

Quick start with the free sampler

With Zampler, Beat introduces a high-quality sample workstation for Windows and OS X. In addition to SFZ-compatible sample oscillators, the instrument offers integrated multimode filters, LFOs, ADSR envelopes, and a complex modulation matrix. The feature set is rounded out by a comprehensive effects section, including tube saturation, two equalizers, phaser, chorus, delay, and reverb, which enhance every sound. Thanks to the clever step sequencer, especially rich and lively tones are among Zampler's specialties. by Marco Scherer & Alexander Weber

Matrix & Sequencer: In addition to a 12-slot modulation matrix, the highlight of the sample player is a powerful 32-step sequencer, referred to here as an arpeggiator.

Effects: Two equalizers, phaser, chorus, delay, overdrive, and reverb make up the extensive effects section, which can turn even dull samples into rich, powerful sounds.

Filter: Zampler features the high-quality filter algorithms from the Dune synthesizer: high-pass, band-pass, low-pass, and notch filters. Cutoff and resonance can be adjusted and automated.

Output: The master section offers gain and glide settings and allows Zampler to be switched to mono mode.

Display: The display is used for navigating through patches and sound banks, entering file names, and even allows saving comments.

LFOs: Three LFOs, each with four waveforms, are available to modulate different targets. You make the assignments in the large modulation matrix.

Envelopes: The sampler offers three ADSR envelopes for filter, amp, and any chosen modulation target. Parallel modulations can also be realized using the modulation matrix.

Keyboard: The instruments can be triggered for testing over five octaves using the mouse and virtual keyboard. The switch toggles to the effects section.

Installation: On OSX, double-click the installer on the Beat DVD. On Windows, simply place the DLL file into the VST folder of your host sequencer.

Zampler.dll
1.0.0.0
Zampler

www.zampler.de
www.beat.de
www.synapse-audio.com

1 Sound Banks

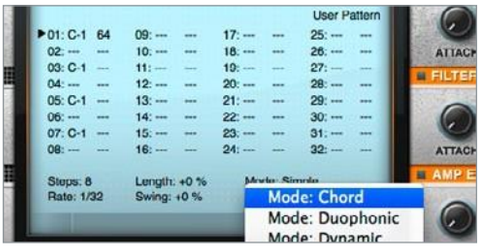
The sampler comes standard with a concert grand piano sound and an exclusive sound bank containing 128 presets. To load a bank, click the ***LOAD*** button under ***BANK*** on the display, navigate in the DVD menu to ***…/Beat Zampler/Library/***, and double-click the desired ***FXB*** sound bank file.

2 Patches

Afterwards, you can preview the sounds using the arrows under ***PATCH*** or by clicking on the patch name. A dropdown menu will open with all presets included in the sound bank. The sampler's sounds are based on multisamples in the open SFZ format, so patches from existing sound libraries in this format can be easily loaded. To do this, click on ***LOAD SFZ***.

3 Features

Information about the SFZ format can be found on the Zampler website [1]. Once you've found a suitable preset, you can tweak to your heart's content. The Zampler features a filter with four different filter types, three envelopes each, and LFOs whose waveforms can be shifted using a ***SKEW*** control and ***RESET*** to restart with each trigger. This is ideal for perfecting modulations.



4 Modulations

The Zampler offers a powerful effects section with distortion, two equalizers, phaser/chorus, delay, and reverb. In the 12-slot ***MOD MATRIX***, in addition to LFOs, envelopes, mod wheel, and aftertouch, 19 other sources can be connected to a total of 31 targets — something that makes any sound designer's heart beat faster. Clicking on ***ARPEGGIATOR*** opens the powerful step sequencer.

5 Arpeggiator

The step sequencer offers up to 32 steps and a ***Shuffle*** function. By clicking on ***User Pattern*** in the ***ARPEGGIATOR*** display, you can load pre-made sequences. The following playback modes are available: ***CHORD*** triggers all held notes and ignores programmed pitches. In ***DUOPHONIC*** mode, two notes can be assigned per step, which are transposed according to the played pitch.

6 Playback

DYNAMIC combines the number of held keys with the programmed sequence and, with some practice, actually results in very dynamic outcomes. In ***MODULATION*** mode, the arpeggiator doesn't play melodies but sends its sequence to the ***MOD MATRIX***. ***SIMPLE*** plays the sequence as programmed. ***ONESHOT*** does the same but only once. ■

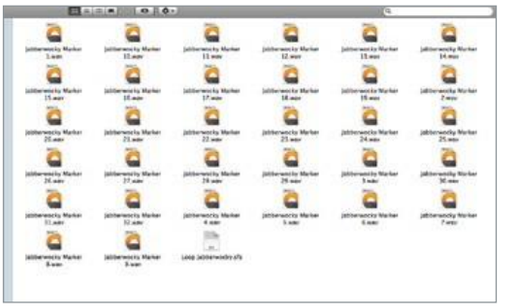
DVD Full Version: Zampler

Loop Tricks with the Arpeggiator

The Beat Zampler not only comes standard with an excellent sound library [1], but can also load your own multisamples in the SFZ format. And here's a trick: the Zampler even becomes a creativity booster for crazy drum loops, because together with the arpeggiator, the plug-in proves to be an all-rounder on drum tracks. The centerpiece: the excellent effects section with EQ, delay, phaser, and reverb. by Marco Scherer

Project Info:

Material: Beat Zampler
Time required: ca. 30 Min
Content: Slice loops, play them back tempo-synced in Zampler, and rearrange them with the arpeggiator.
Difficulty: Beginner



1 Slicing

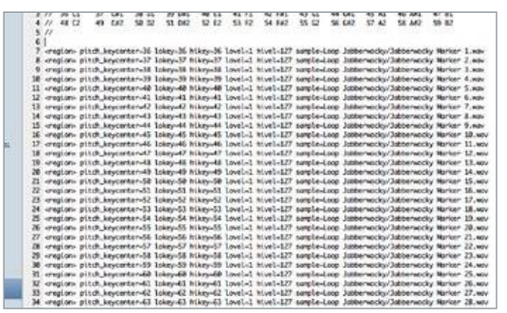
To play a loop in sync with the host, we use a technique known from the REX format: the sample is split into multiple slices and played back sequentially. Typically, it's divided into 16 or 32 short samples. The more slices there are, the more you can deviate from the original tempo without producing a choppy sound. For our workshop, we'll use 32 slices.

2 À la Rex

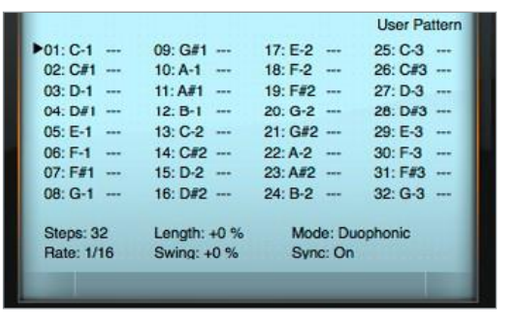
First, choose any loop and load it into your DAW or any program that allows you to literally break it down into individual parts. It's important that the loop isn't sliced by its transients (volume peaks), but instead into 32 equally long samples. Ableton Live, for example, offers the option ***Slice to New MIDI Track*** for this purpose.

3 Sample Export

In Cubase, you can evenly split a sample using the scissors tool while holding down the ***[ALT]*** key, and Mac users can use the Sample Manager by Audiofile Engineering [2]. A bit more time-consuming—but possible in any DAW—is manual slicing. Then export the 32 samples into a folder, create a text file with the *".sfz"* extension, and open it in a text editor.



```
 9 <region> pitch_keycenter=36
10          lokey=36
11          hikey=36
12          lovel=1
13          hivel=127
14          sample=Loop Jabberwocky/Jabberwocky Marker 1.wav
15
16 <region> pitch_keycenter=37
17          lokey=37
18          hikey=37
19          lovel=1
20          hivel=127
21          sample=Loop Jabberwocky/Jabberwocky Marker 2.wav
22
23 <region> pitch_keycenter=38
24          lokey=38
```



4 SFZ File

Here, we create a so-called ***<region>*** for each slice, which assigns the sample to a specific key and velocity. The first sample should be triggered by C1, the second by C#1, the third by D1, and so on. The notes are specified using their corresponding MIDI numbers, starting with 36 for C1. A complete list is available as a PDF on our Zampler website [1].

5 Regions

For the first slice, ***enter pitch_keycenter=36***, as well as ***lokey=36*** and ***hikey=36***. Since only one slice is played per key, we assign each one the full velocity range, i.e., ***lovel=1*** and ***hivel=127***. Now all that's missing is the slice itself, which you specify using ***sample=folder/wave-file-1.wav***. Copy this line 31 times and adjust the note and sample name for each accordingly.

6 Sequence

Load the SFZ file into Zampler and program a 32-step sequence in the arpeggiator at a 1/16 ***rate***, as shown above. You can now play your loop in sync with the tempo. Tip: Be sure to experiment with filter settings and other modulations, or move the pitch wheel during playback. This can create some truly wild grooves and effects. ■

[1] www.zampler.de; [2] www.audiofile-engineering.com

DVD Full Version: Beat Zampler (3)

Enter the Matrix

With Zampler, you don't just get an excellent SFZ player—you also get a fully developed synthesizer. After all, under the hood runs the renowned DUNE synthesis architecture from Synapse Audio. In addition to the step sequencer already introduced [1], the plug-in also offers an extensive modulation matrix, which significantly expands the already flexible sound design capabilities. We take the red pill—and dive into the sonic potential of the (mod) matrix.

by Marco Scherer

Project Info:

Material: Beat Zampler from DVD or [2]
Time required: ca. 30 Min
Content: Clever sample modulations with the mod matrix.
Difficulty: Beginner

	SOURCE	AMOUNT	DESTINATION
1	Velocity	+100	Volume
2	LFO1*MW	+24	Pitch Semi
3	---	---	---
4	---	---	---
5	LFO 3	-75	Filter Cutoff
6	LFO 2	+30	LFO 3 Rate
7	---	---	---
8	---	---	---
9	---	---	---
10	---	---	---
11	---	---	---
12	---	---	---

1 Wobble Bass

As the first sound, we'll take on a dynamic wobble bass. That means the filter of a bass sound is modulated by an LFO, with the LFO's speed continuously varying.
First, load any bass sound into Zampler and select ***LOWPASS*** as the filter type. Keep the ***CUTOFF*** fully open, and ***RESO***(nance) can later be subtly added as desired for some bite.

2 The Matrix

In the ***MOD MATRIX***, select LFO 3 as the ***SOURCE***, ***Filter Cutoff*** as the ***DESTINATION***, and set ***AMOUNT*** to -75. For LFO 3, enable ***SYNC*** and ***RESET*** so that the LFO runs in sync with the host and restarts with each trigger. Set the ***RATE*** to ¼ and the waveform to ***Sine***. So far, our bass already sounds quite "wobbly," but the fine touch is yet to come. Link LFO 2 to the ***LFO 3 rate*** …

3 Effective

…with an ***AMOUNT*** of +30. For LFO 2 ***Tempo***, choose 1.5 Hz and ***Noise*** as the waveform. Experiment with the ***AMOUNTS*** and ***LFO Rates*** until the sound fits perfectly. Even more movement is created by the ***PHASER*** effect. Set ***RATE*** to 0.08 Hz, ***FREQ*** and ***F-BACK*** (feedback) to 50%, ***DEPTH*** to 80%, and ***AMOUNT*** to 100%. For solo passages, a subtle ***Delay*** is also recommended.

	SOURCE	AMOUNT	DESTINATION
1	Velocity	+100	Volume
2	MWheel	-48	LFO 2 Rate
3	Mod Env	+67	Pitch Semi
4	---	---	---
5	LFO2*AT	+48	Pitch Semi
6	---	---	---
7	---	---	---
8	---	---	---
9	---	---	---
10	---	---	---
11	---	---	---
12	---	---	---

4 Mod Wheel FM

Frequency modulation has always been a guarantee for aggressive leads, punchy basses, and unusual effects. Although Zampler is not a classic FM synth, similar sounds can be easily created thanks to the modulation matrix. Load an SFZ file again and go directly to the matrix. There, connect ***LFO1*MW*** to ***Pitch Semi*** with an ***AMOUNT*** of +48 and set the ***LFO 1 Rate*** to about 48 Hz.

5 Pitch Modulation

The LFO thus modulates the pitch at a very high frequency by 48 semitones, which corresponds to four octaves. The abbreviation **MW means that the modulation is only activated by moving the mod wheel. This makes sense for such a drastic modulation, otherwise it would just create sound mush. If you prefer to control the effect via aftertouch, select **LFO1**AT as the **SOURCE**.*

6 Envelope

You can now give the preset a final touch by linking the ***Mod Env*** envelope to ***Pitch Semi***. Set the ***AMOUNT*** as you like and vary the ***ATTACK*** and ***DECAY*** times. This adds more punch to the sound, especially in combination with the frequency modulation. Here too, ***Phaser*** and ***Delay*** can work wonders to add even more width. ■

[1] Siehe Workshop in Beat 07.08|12, zu beziehen im www.falkemedia-shop.de; [2] www.zampler.de